Application No.: 10/511,715 Amendment under 37 C.F.R. §1.111

Art Unit: 4162 Attorney Docket No.: 042834

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please amend paragraph beginning on page 13, line 6 to read as follows:

A plurality of pellet-shaped C12A7 polycrystal samples prepared through a solid-phase

reaction process were subjected to a heat treatment in different hydrogen-containing atmospheres

controlled at various temperatures as shown in Case Nos. 1 to [[7]] 8 of Table 1, and cooled to a

room temperature at various cooling rates. Each of the heat-treated samples was irradiated with

ultraviolet light from a Xe lamp for about 30 seconds, and a resistance between two terminals

spaced apart from one another by a distance of 2 mm was measured. Each of the resistance

values in Table 1 is an electric resistance at a room temperature after the ultraviolet irradiation.

Table 1 also shows the level of sensitivity to ultraviolet light (⊚: high, o: medium, ×: none). As

seen in Table 1, the polycrystal sample has a higher conductance in response to the ultraviolet

irradiation as the sample is cooled at a higher cooling rate after subjected to a heat treatment in a

hydrogen-containing atmosphere at a temperature of 800°C or more.

- 2 -

Application No.: 10/511,715 Art Unit: 4162 Amendment under 37 C.F.R. §1.111 Attorney Docket No.: 042834

Please amend Table 1 on page 13:

Table 1

Case	Atmosphere	Heat Treatment	Cooling	Resistance	Sensitivity to Ultraviolet
1	20%H ₂ -80%N ₂	1300°C × 2h	slow cooling (200°C/h)	10 kΩ	©
2	20%H ₂ -80%N ₂	1300°C × 2h	furnace cooling (~ 600°C/h)	8 kΩ	©
3	20%H ₂ -80%N ₂	1300°C × 2h	rapid cooling (> 50°C/h)	7 kΩ	©
4	20%H ₂ -80%N ₂	1100°C × 2h	furnace cooling (~600°C/h)	13 kΩ	0
5	20%H ₂ -80%N ₂	800°C × 2h	furnace cooling (~600°C/h)	10^{10} [[k Ω]] Ω	×
6	100%H ₂	1300°C × 2h	rapid cooling (> 50°C/h)	8 kΩ	©
7	5%H ₂ -95%N ₂	1300°C × 2h	rapid cooling (> 50°C/h)	7 kΩ	©
8	20%H ₂ -80%N ₂	800°C × 2h	rapid cooling (> 50°C/h)	20 kΩ	0